

Title (en)

PREPARATION OF ALKYLAROMATIC HYDROCARBONS AND ALKYLARYL SULFONATES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON ALKYLAROMATISCHEN KOHLENWASSERSTOFFEN UND VON ALKYLAROMATISCHEN SULFONATEN

Title (fr)

PREPARATION D'HYDROCARBURES ALKYLAROMATIQUES ET DE SULFONATES D'ALKYLARYLE

Publication

**EP 1490314 A1 20041229 (EN)**

Application

**EP 03714442 A 20030328**

Priority

- US 0309517 W 20030328
- US 36923202 P 20020329
- US 36892802 P 20020329
- US 36891702 P 20020329

Abstract (en)

[origin: US2005165264A1] In a process for preparing an alkylaromatic hydrocarbon composition an olefinic hydrocarbon mixture and an aromatic compound are contacted under alkylation conditions with an aromatic alkylation catalyst selected from a homogeneous acid catalyst and heterogeneous acid catalyst comprising a molecular sieve having an X-ray diffraction pattern including d-spacing maxima at  $12.4 \pm 0.25$ ,  $6.9 \pm 0.15$ ,  $3.57 \pm 0.07$  and  $3.42 \pm 0.07$  Angstroms. The olefinic hydrocarbon mixture comprises at least 5 wt % by weight of mono-olefin oligomers of the empirical formula:  $C_nH_{2n}$  wherein n is greater than or equal to 10, the mono-olefin oligomers comprising at least 20 percent by weight of olefins having at least 12 carbon atoms, and the olefins having at least 12 carbon atoms having an average of from 0.8 to 2.0  $C_1$  alkyl branches per carbon chain. Sulfonation of the alkylaromatic hydrocarbon product produces an alkylaryl sulfonate mixture that exhibits advantageous properties, such as biodegradability and hard and cold water performance.

IPC 1-7

**C07C 2/66**; **C07C 15/107**; **C07C 309/31**

IPC 8 full level

**C07C 2/66** (2006.01); **C07C 15/107** (2006.01); **C07C 303/06** (2006.01); **C07C 309/31** (2006.01)

CPC (source: EP KR US)

**C07C 2/12** (2013.01 - KR); **C07C 2/66** (2013.01 - EP US); **C07C 15/107** (2013.01 - EP US); **C07C 29/16** (2013.01 - KR); **C07C 303/02** (2013.01 - KR); **C07C 303/06** (2013.01 - EP US); **C07C 2527/1206** (2013.01 - EP US); **C07C 2527/126** (2013.01 - EP US); **C07C 2527/173** (2013.01 - EP US); **C07C 2529/70** (2013.01 - EP US)

Citation (search report)

See references of WO 03082782A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2005165264 A1 20050728**; **US 7622621 B2 20091124**; AU 2003218440 A1 20031013; BR 0308410 A 20050118; CA 2478161 A1 20031009; CN 100457696 C 20090204; CN 1642883 A 20050720; EP 1490314 A1 20041229; KR 100965981 B1 20100624; KR 20040095337 A 20041112; MX PA04009472 A 20050203; US 2010022802 A1 20100128; US 8183420 B2 20120522

DOCDB simple family (application)

**US 50950803 A 20030328**; AU 2003218440 A 20030328; BR 0308410 A 20030328; CA 2478161 A 20030328; CN 03807284 A 20030328; EP 03714442 A 20030328; KR 20047015365 A 20030328; MX PA04009472 A 20030328; US 57594809 A 20091008